

Insul-Lock® White Seam-Seal 3-Foot

Pipe Insulation

Flexible Closed Cell Insulation

Designed for Domestic Hot & Cold Water Plumbing Systems



DESCRIPTION

Insul-Lock® White Seam-Seal 3-foot pipe insulation is an environmentally friendly, CFC-free, non fibrous moisture resistant flexible elastomeric insulation, pre-slit with a factory-applied pressure sensitive adhesive. It is white in color and identified as Insul-Lock® White Seam-Seal 3-foot. This superior closed cell insulation is designed to retard heat flow and prevent condensation when properly installed. Insul-Lock® White Seam-Seal 3-foot pipe insulation is pre-slit with a factory applied specially formulated bonding adhesive applied to both seam surfaces and comes with built-in release liners which allow for easy installation. It is available in 1/2" and 1" wall thickness and in sizes ranging from 1/2" to 3-1/8" ID. Insul-Lock® White Seam-Seal 3-foot key physical properties are approved through supervision by Factory Mutual Research Corporation. Insul-Lock® White Seam-Seal 3-foot is non-porous, non-fibrous and resists mold growth. An EPA registered antimicrobial agent is incorporated into the product providing additional protection against mold, fungal and bacterial growth. K-Flex USA elastomeric insulation products are GREENGUARD® certified as low VOC materials, meeting the requirements of the "Children and Schools" classification, the most stringent requirement. Additionally, all K-Flex USA elastomeric insulation products are GREENGUARD® listed for mold resistance and meet the "mold resistant" criteria.

APPLICATIONS

Insul-Lock® White Seam-Seal 3-foot is recommended for hot/cold water

plumbing lines. It is ideal for straight runs, speeding up installation time. Insul-Lock® White Seam-Seal 3-foot is recommended for applications ranging from +45°F to 185°F (7°C to 85°C) for both new and existing applications. Insul-Lock® White Seam-Seal 3-foot can be used with heat tracing/heat tapes. For best results, store and install Insul-Lock® White Seam-Seal 3-foot at temperatures above 40°F (4°C).

Insul-Lock® White Seam-Seal 3-foot's seam-seal closure system is designed to save labor costs, particularly on straight runs and retrofit applications. It greatly reduces the use of contact adhesives, thus allowing for improved working conditions and compliance with OSHA requirements.

INSTALLATION

Insul-Lock® White Seam-Seal 3-foot is pre-slit with factory-applied adhesive (PSA) on both seam surfaces. Convenient built-in tabs ease installation: slip the tube on the pipe, pull the tab to expose the adhesive, and pinch the sides together applying pressure to the seam. The seam should be positioned to be on the bottom of the pipe.

For applications 45°F and above butt seams can be sealed with an approved contact adhesive or tape.

Fittings are fabricated from miter-cut tubular sections. K-Fit™ factory fabricated fittings are also available.

No special equipment or protective clothing is required.

FEATURES & BENEFITS

Insul-Lock® White Seam-Seal 3-foot offers the advantage of easier handling and installation.

- Easy-to-handle stackable box
- Easier to seal in hard-to-reach areas
- Greatly reduces need for contact adhesives
- Non fibrous/moisture resistant
- No special equipment or protective clothing needed for installation
- Enhanced safety – avoids over-reaching when working from scaffolding or ladders
- Can be used in through wall penetration applications with appropriate fire

stopping

- Cost effective

These advantages are particularly evident when working from ladders, lifts or scaffolding.

RESISTANCE TO MOISTURE VAPOR FLOW

The closed-cell structure and unique formulation of Insul-Lock® White Seam-Seal 3-foot effectively retards the flow of moisture vapor, and is considered a low transmittance vapor retarder.

FLAME AND SMOKE RATING

Insul-Lock® White Seam-Seal 3-foot pipe insulation in 1" (25 mm) wall thickness has a flame spread rating of 25 or less and a smoke development rating of 50 or less as tested by ASTM E 84 Method of Testing entitled: "Surface Burning Characteristics of Building Materials." Insul-Lock® White Seam-Seal 3-foot Pipe Insulation is acceptable for use in duct/plenum applications meeting the requirements of NFPA 90A/B.

Numerical flammability ratings alone may not define the performance of products under actual fire conditions. They are provided only for use in the selection of products to meet limits specified, when compared to a known standard.

SPECIFICATION COMPLIANCE

ASTM C 534 Type 1 (Tubing), Grade 1
ASTM D 1056-00-2C1
USDA Requirements

UL 94-5V Flammability Classification (Recognition No. E300774)
ASTM E 84 1" 25/50-tested according to UL 723 and NFPA 255
Complies with requirements of CAN/ULC S102-03

Acceptable for clean room applications

Meets requirements of NFPA 90A Sect. 2.3.3 for Supplementary Materials for Air Distribution Systems
Meets requirements of ASTM C 411 (Test Method for Hot Surface Performance of High Temperature Thermal Insulation)

Meets requirements of UL 181 sections 11.0 and 16.0 (Mold Growth/Air Erosion)



Insul-Lock® White Seam-Seal 3-foot Pipe Insulation

PRODUCT DATA

Physical Properties		INSUL-LOCK® WHITE Insulation	Test Methods
Thermal Conductivity (K)	90°F (32°C) Mean Temp	.27 (.039)	ASTM C 177/C 518
BTU - in/hr - Ft² - °F (W/mK)	75°F (24°C) Mean Temp	.25 (.036)	ASTM C 177/C 518
Density		3-6 PCF	ASTM D 1622/D 3575
Operating Temperature Range		185°F (85°C)	
Upper			
Lower		45°F (7°C)	
Water Vapor Permeability Dry Cup. Perm-In		<0.06	ASTM E 96
Water Absorption %		<0.20 by volume	ASTM C 209
Flame Spread (up to 1-1/2" wall)		Not greater than 25	ASTM E 84
Smoke Developed (up to 1-1/2" wall)		Not greater than 50	ASTM E 84
Ozone Resistance		Pass	ASTM D 1171
Chemical/Solvent Resistance		Good	
Mildew Resistance/Air Erosion		Pass	UL 181

Thickness Recommendations* - To Control Condensation

Pipe Size	Line Temp	
	45°F	7°C
Normal Conditions (Max 85°F, 29°C - 70% R.H.)		
3/8" I.D. thru 1-3/8" I.D.	1/2"	12 mm
Over 1-3/8" thru 3 1/8" I.D.	1/2"	12 mm
Mild Conditions (Max 80°F, 26°C - 50% R.H.)		
3/8" I.D. thru 2-1/8" I.D.	1/2"	12 mm
Over 2-1/8" thru 3-1/8" I.D.	1/2"	12 mm
Severe Conditions (Max 90°F, 32°C - 80% R.H.)		
3/8" I.D. thru 1-1/8" I.D.	1"	25 mm
Over 1-1/8" thru 2 5/8" I.D.**	1"	25 mm

*Insul-Lock® White in thickness noted within the specified temperature ranges will prevent condensation in indoor piping under design conditions defined below.

Normal: Maximum severity of indoor conditions seldom exceed 85° F and 70% R.H. in the United States.

Mild: Typical conditions for most air-conditioned spaces and arid climates.

Severe: Generally found in areas where excessive moisture is introduced or in poorly ventilated areas.

Under conditions of higher humidity, additional thickness of insulation may be required.

** For severe conditions use Insul-Lock® or Insul-Tube® White 1" wall thickness

INSUL-LOCK® WHITE "R" Values

Pipe O.D. or Normal Insulation I.D.		R Value 1/2" (13 mm) wall	R Value 1" (25 mm) wall
3/8"	10 mm	3.5	—
1/2"	13 mm	3.3	—
5/8"	16 mm	3.2	7.4
3/4"	19 mm	3.0	7.3
7/8"	22 mm	3.1	7.0
1-1/8"	29 mm	3.1	7.1
1-3/8"	35 mm	3.1	7.2
1-5/8"	41 mm	3.1	7.1
1-1/2" IPS	—	3.0	6.7
2-1/8"	54 mm	3.2	6.8
2" IPS	—	3.1	6.6
2-1/2" IPS	64 mm	3.2	6.4
2-5/8"	67 mm	3.2	6.5
3-1/8"	79 mm	3.1	6.2

Note: "R" factors were calculated using a k factor of 0.2575 (0.25 plus 3% test error allowance at 75°F, 24°C mean temp.) and nominal wall thickness in each case. Lower operating temperatures will result in improved R values. Contact Technical Services for specific recommendations.



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